mone replacement therapy (HRT), and cancer screening. HRT is effective for treating the symptoms of acute menopause, and it may prevent some chronic health problems associated with growing older. However, HRT may increase the risks for other diseases.
OBJECTIVE: The purpose of this study was to estimate the level of health care use and costs incurred by postmenopausal women for conditions that have been associated with HRT.
METHODS: National health care survey and discharge data were used to estimate health care use by women age 45 and older for cardiovascular disease, osteoporosis, breast cancer, uterine cancer, and deep-vein thrombosis/pulmonary embolism. The databases used were the Healthcare Utilization Project-3, National Ambulatory Medical Care Survey, National Hospital Ambulatory Medical Care Survey, National Nursing Home Survey, and National Home and Hospice Care Survey. Clinical Classification for Health Policy Research codes were used to identify patients whose primary diagnosis or procedure corresponded with the above conditions. National weights were used to estimate resource use. Treatment costs were estimated using cost-to-charge ratios or Medicare Fee Schedule to calculate costs of individual procedures.
RESULTS: For each of the five conditions, resource use and costs are reported for hospitalization, outpatient, nursing home, and home health care services. Resource use and costs are also reported by age and race/ethnicity.
CONCLUSION: Results of the study may be used to estimate the burden of disease for conditions commonly affecting postmenopausal women and to provide data for cost-effectiveness models comparing newly developed drugs to existing HRTs.

PHB7

THE DIRECT MEDICAL COST OF OSTEPOROTIC FRACTURES

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OBJECTIVE: To isolate the cost of bone fracture to a Medicaid/Medicare payor for an osteoporosis-prone population.
SUBJECTS: Claims data for Georgia Medicaid eligibles from 1992 through 1994 were obtained. Recipients meeting the following inclusion criteria were retained for analysis: age $\geq$50 years, female, claim with an ICD9 code indicative of fracture in 1993, 12 months of contiguous eligibility immediately prior to and after first fracture claim. Recipients were stratified based upon site of fracture (femur/other fracture site).
METHODS: Amounts paid by Medicaid and Medicare were proxies for direct medical costs. Per recipient per month costs were disaggregated by category of service (hospital, nursing home, physician, prescription, miscellaneous) for each of the 24 months of the study. Interrupted time series models were estimated to isolate the incremental change in cost due to fracture, with terms controlling for pre-existing trend, run-in costs, and any autoregressive errors.
RESULTS: A total of 765 subjects met inclusion criteria, with 226 femur fracture patients. All times series models estimated are significant, with R-squares ranging from 0.90 to 0.98. Average total cost temporarily increased $1,120 and $1,091 for the month of femur and other fracture, respectively. Observed cost increases returned to baseline trend levels within three months after fracture. Likewise, costs disagregated by category of service temporarily increased with fracture, except nursing home costs, which permanently increased after fracture.
CONCLUSION: Only nursing home costs increased persistently over a 12-month period ensuing fracture; all other costs increased but quickly returned to baseline trend. The incremental direct total cost of any type of fracture is less than $2,000. This is in contrast to the $13,396 in outlays by Medicaid and Medicare the year after fracture for the average fracture patient.

PHB8

COST-EFFECTIVENESS OF HORMONE THERAPY VERSUS CALCIUM THERAPY: AN OSTEOPOROSIS MARKOV MODEL

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Osteoporosis is a chronic degenerative disease with concentrated prevalence in the most rapidly growing segment of the population, the elderly. Its clinical and economic consequences are substantial. This study assesses the cost-effectiveness of two gold standard therapeutic approaches to reducing the impact of related fractures.
OBJECTIVES: To determine the cost-effectiveness ratios of the two therapeutic approaches. To model the cohort progression through the Markov states.
METHODS: Using published literature values, a Markov model was constructed. The model depicts a cohort of 1,000 women progressing from age 50 to 90 years or death, whichever comes first. The hormone therapy alternative includes calcium supplementation as part of the regimen. The model accounts for the following confounders: age dependent rate of death, predisposition to subsequent fracture, and the cardioprotective effect of hormone therapy. Sensitivity analysis was conducted on all relevant variables to assess the robustness of the findings. The primary outcome of interest was cost per fracture avoided. Additionally, Markov analysis of the model reports the distribution of women across each Markov state.
RESULTS: The study revealed that hormone therapy is more cost-effective than calcium therapy. Cost-effectiveness ratios for the two alternatives were $43,729.82 and $87,003.53 per fracture avoided for hormone therapy and calcium therapy, respectively. The incremental cost-